

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:)
Elie-Jean Raad) Group Art Unit: 2612
Application No. 09/386,506) Examiner: Hannett, James M
Filing Date: August 31, 1999) Atty. Docket: 16337.380
Title: QUICK CHANGE LENS MOUNT)

To:

The Assignment Commissioner of Patents
Washington, D.C. 20231

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FEB 25 2004

APPELLANT'S BRIEF

Technology Center 2600

Appellant herewith submits this brief pursuant to 37 C.F.R.

1.192. **Appellant continues to request an ORAL HEARING.**

TABLE OF CONTENTS

Real Party in Interest	3
Related Appeals and Interferences	3
Status of Claims	3
Status of Amendments	3
Summary of Invention	3
Issues	4
Grouping of Claims	5
Argument	5
Conclusion	10
Appendix: Claims	12

Real Party in Interest

The real party in interest is the party named in the caption of the brief, Elie-Jean Raad.

Related Appeals and Interferences

There are no related cases known to the Appellant, or to the Appellant's legal representative.

Status of Claims

The status of the claims in the Application as of November 10, 2003 is as follows:

- (a) Claims 2, 3, and 10-12 have been cancelled; and
- (b) Claims 1, 4-9, and 13-15 are pending.

The claims on appeal are pending claims 1, 4-9, and 13-15.

Status of Amendments

No amendments have been filed subsequent the final rejection. No amendments are made in this brief.

Summary of Invention

The present invention provides for a quick change lens mount for connecting a lens assembly to a camera board. The camera board has an image recording device, a filter and a filter housing to position the filter over the image recording device. The quick change lens mount includes a base, having an interior

opening, attached to the camera board and a quick connect coupling having a pair of slots to permit passage of a key and a pair of keyways extending circumferentially from ends of corresponding ones of the slots. The quick change lens mount further includes a removable adapter coupled to the lens assembly, having a threaded interior opening to receive a threaded end of a lens housing and a base insert end, the base insert end having keys for engagement with the keyways on the base so as to lock the lens assembly to the base upon engagement of the keys of the removable adapter to respective ones of the keyways on the base, and means for affixing the base, filter and filter frame to the camera board.

Issues

The Appellant's have identified issues for review as follows:

- (1) Whether claims 1, 4, 5, 6, 9, and 13 are unpatentable under 35 U.S.C. 103(a) over USPN 6,011,661 WENG in view of USPN 4,104,649 TANAKA et al in further view of USPN 5,455,711 PALMER; and
- (2) Whether claims 8 and 15 are unpatentable under 35 U.S.C. 103(a) over USPN 6,011,661 WENG in view of USPN 4,104,649 TANAKA et al in further view of USPN 5,455,711 PALMER in view of JP-10073864 NEMOTO.

Grouping of Claims

Pending device claims 1 and 4-8 stand together and pending method claims 9 and 13-15 stand together.

Argument

Claims 1, 4, 5, 6, 9, and 13 have been rejected as unpatentable under 35 U.S.C. 103(a) over USPN 6,011,661 WENG in view of USPN 4,104,649 TANAKA et al in further view of USPN 5,455,711 PALMER. As regards claim 1, the Official Action of September 11, 2003 asserts that Weng, in Fig. 1, depicts a quick change lens mount for connecting a lens assembly to a camera board. The Official Action aforesaid asserts that the threaded chamber 11 of Weng is a quick connect coupling as in claim 1. The Advisory Action of Dec. 5, 2003 states that there are two definitions of a quick connect coupling in the specification. It says that a definition is constituted by the statement, "the quick connect coupling on the base for removable coupling to the lens assembly" (page 2, lines 7-8). It says that since a threaded connector is a removable coupling, it is therefore defined as a quick connect coupling. The wording of the alleged definition is not that of a definition but merely a statement as to the use of the quick connect coupling on the base. However, the Background does discuss a system having threads on the lens and on the base as belonging to the prior art. There is no reference to such systems as "quick connect couplings". The industry standard for quick connect couplings does not include threaded couplings.

For example, U.S. Patent No. 6,672,628 issued to Thomas entitled "Quick Connect Hose Coupling" in column 1, lines 20-23 states, "The present invention provides a quick connect coupling that eliminates the need for threaded fittings when connecting, for example, a faucet valve or spout to a flexible hose." Clearly Mr. Thomas who obviously works for Masco Corporation of Indiana, one of the world's leading manufacturers of home improvement and building products, excludes threads from quick connect couplings.

As another example, U.S. Patent No. 6,488,320 issued to Anderson and assigned to Pilot Industries, Inc., now amalgamated with Martinrea, a manufacturer of metal parts, assemblies and modules, fluid management systems for the auto and industrial sector, states in column 1, lines 12-16;

"There are many previously known quick connect couplings which are adapted for use with tubular conduits having a radially outwardly extending bead adjacent a free end of the conduit.

These previously known quick connect couplings typically comprises an elongated tubular and cylindrical housing having an axial throughbore which forms the fluid passageway through the housing. The bore is open at both ends.

One end of the housing forms a female end portion and includes an enlarged diameter portion adapted to axially slidably receive the free end of the tubular conduit until the conduit bead is positioned within the interior of the housing. Furthermore, upon insertion of the conduit into the housing a retainer contained within the housing and the conduit together."

Further examples such as U.S. Patent No. 4,332,402 are consistent with the above. Examples of industry quick connect couplings disclose that they consist of male and female parts one being insertable into the other and locked by some means without the presence of threads on the male or female parts.

Copies of the above cited art are enclosed herewith.

Accordingly, it is respectfully submitted that the ordinary meaning in the industry of quick connect couplings do not include threaded couplings as asserted by the above-mentioned Official Actions. Moreover, the background discussion in the original patent application herein teaches away from the inclusion of threaded couplings. Consequently, Weng cannot be said to be a quick connect coupling as referred to in the body of claim 1.

Currently amended claim 1 defines the quick connect coupling as having a pair of slots to permit passage of a key and a pair of

keyways extending circumferentially from ends of corresponding ones of the slots. Weng does not disclose such a structure.

In Weng a lens assembly (not shown) needs to be threaded into threaded opening 11 and then secured by a lock screw through opening 18. Not only is the Weng type of connection not a quick-connect coupling, it is more difficult and time consuming to install than even a conventional threaded coupling as it requires a lock screw to be tightened while the lens assembly is in a precise location relative to the threaded front chamber 11. That kind of adjustment of the lens is very difficult to achieve with threaded interconnections of the lens assembly and the front chamber 11. A removable adapter that allows pre-assembly of the lens assembly and the adapter at the factory ensures that on coupling of the quick-connect coupling of the lens assembly to the camera base, no adjustment is required of the lens assembly, unlike Weng.

Tanaka does not have a removable adapter fastenable to the lens assembly on one side and by means of keys engaging keyways in a camera base on the other. Adapter AD merely provides pin connections 16 (see Fig. 1) which contact switches SW to convey a full open F number for the lens. Adapter AD performs no role in fastening the lens assembly LE to the camera base CA. Changing a lens for Tanaka would require disassembly of the lens assembly and reassembly with a new lens. Consequently, the adapter of Tanaka is not equivalent in function to that of Appellant and

cannot be combined with Weng (even if Weng showed a quick connect coupling) to give Applicants invention as claimed in claim 1.

Palmer discloses two ring adapters, which couple a lens assembly to a night vision device. A first adapter screws into threads in the night vision housing and the second adapter screws into the first adapter. The lens assembly then screws into the second adapter. No quick coupling is disclosed. Again as in Weng, precise location of the lens assembly relative to the night vision device depends on the precise thread registration of two adapters and the lens assembly. The adapters of Palmer do not disclose keys nor does the camera base disclose keyways, which engage the keys as recited in claim 1. Thus, Palmer does not give Applicant's invention when combined with Weng (even if Weng disclosed a quick connect coupling).

The combination of Weng, Tanaka and Palmer do not disclose an adapter having a base insert end with keys for engagement of a camera base keyway so that precise location of a lens assembly can be easily achieved.

Claim 9, which has been rejected under s.102(e) by Weng for allegedly showing a method of mounting a lens assembly to a camera board, defines threadedly attaching a removeable adapter to the lens assembly and attaching the adapter to the base by means of keys which engage keyways in the base. Weng does not show such a structure.

Claims 8 and 15 are rejected as unpatentable under 35 U.S.C. 103(a) over USPN 6,011,661 WENG in view of USPN 4,104,649 TANAKA et al in further view of USPN 5,455,711 PALMER in view of JP-10073864 NEMOTO.

Claim 8 is dependent on claim 6, which, in turn, is dependent on claim 1. Consequently, if claim 1 or 6 is allowable then so is claim 8.

Claim 15 depends on claim 13, which, in turn, depends on claim 9. Consequently, if claim 9 or 13 is allowable, then so is claim 15.

Conclusion:

A quick connect coupling, as that term is used in the industry, consists of a male and female part with the male part insertable into the female part and then locked by either twisting or utilizing another mechanism. No screw threads are used on either of the aforesaid parts. Thus, Weng does not disclose a quick connect coupling as alleged in the Official Action of Sept. 11, 2003 and the Advisory Action of Dec. 15, 2003.

The adapter of Tanaka does not perform the function of fastening a lens assembly to a base as does Appellant's invention. Accordingly, Tanaka's alleged adapter is not equivalent to that of Appellant.

Palmer discloses two ring adapters that threadedly couple to each other and to a lens assembly at one end and to a night vision device at the other end. Palmer does not disclose keys and keyways, nor because of its three threaded connections does it repeatedly position the magnifying objective lens relative to the objective lens 12 of the night vision device. Thus, the combination of Weng, Tanaka and Palmer do not disclose Appellant's claimed invention.

Respectfully Submitted,

Date: 2-23-2004

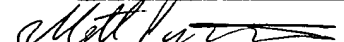

Geoffrey R. Myers, Reg. No. 24,897

Attorney for Applicant

HALL, PRIDDY, MYERS, & VANDE SANDE
10220 River Road, Suite 200
Potomac, Maryland 20854
(301) 983-2500

I hereby certify that this correspondence is being
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MATTHEW A. PEQUIGNOT, REG. 43,851 DATE

Attachments

Appendix

WHAT IS CLAIMED IS:

CLAIM:

1. A quick change lens mount for connecting a lens assembly to a camera board, the camera board, the camera board having a image recording device, a filter and a filter housing to position the filter over the image recording device, comprising:

- (a) a base attached to said camera board, having a quick connect coupling for removable coupling to said lens assembly said base having an interior opening and said quick connect coupling having a pair of slots to permit passage of a key and a pair of keyways extending circumferentially from ends of corresponding ones of said slots;
- (b) a removable adapter coupled to said lens assembly, said removable adapter having a threaded interior opening to receive a threaded end of a lens housing and a base insert end, said base insert end having keys for engagement with said keyways on said base so as to lock said lens assembly to said base upon engagement of the keys of said removable adapter to respective ones of said keyways on said base, and;

- (c) means for affixing said base, filter and filter frame to said camera board.

4. A mount according to claim 1, wherein said base insert end of said removable coupling has a cylindrical surface with a pair of keys affixed thereto on diametrically opposite sides of said cylindrical surface.

5. A mount according to claim 1, wherein said means for affixing is a pair of screws passing through holes in said camera board and filter frame and engaging threaded holes in said base.

6. A mount according to claim 1, wherein said filter housing is resilient so as to shield said filter from impact.

7. A mount according to claim 6, wherein said filter housing is rectangular and has undercuts at respective corners such that corners of said filter extend through corresponding ones of the undercuts of said filter housing such that said filter housing tightly grips said filter.

8. A mount according to claim 5, wherein said filter housing is elastomeric.

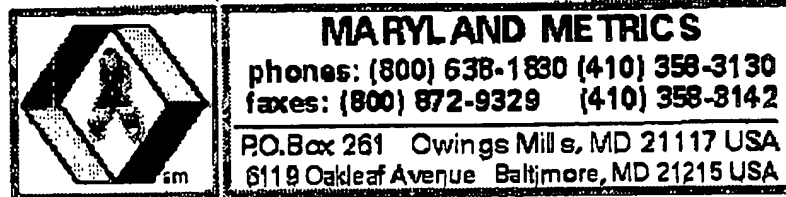
9. A method of mounting a lens assembly to a camera board, comprising:

- (a) attaching a removable adapter to said lens assembly, said adapter having a threaded opening with threads that mate with threads on said lens assembly and a pair of keys at an end thereof opposite to said threaded opening;
- (b) forming a base to lock to an end of said removable adapter, said base having an opening with slots and keyways on an interior surface thereof which slidably receive and engage said keys on said removable adapter;
- (c) mounting said base over an image recording device and affixed to said camera board; and
- (d) inserting and locking said lens assembly to said base.

13. A method according to claim 9, wherein said image recording device includes a filter and said base includes a filter housing to shield said filter by forming said filter housing with a resilient material.

14. A method according to claim 13, wherein said filter housing is rectangular with its corners undercut so as to permit firm engagement of sides of said filter by sides of said filter housing.

15. A method according to claim 13, wherein said filter housing is elastomeric.



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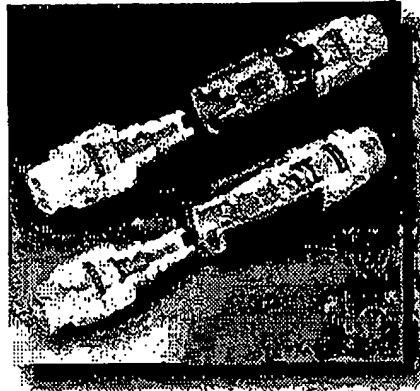
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